



# THE USE OF THE ACTIVATED N-TERMINAL SIXTEEN AMINO ACID PEPTIDE OF THE ANTINEOPLASTIC PROTEIN (ANUP) AS A PHARMACOLOGICALLY ACTIVE ANTI-TUMOR AGENT

## FIELD OF THE INVENTION

5 The present invention relates to the use of the 16 amino acid peptide which represents the partial N-terminal amino acid sequence of the Antineoplastic Protein (ANUP) as a pharmacologically active antitumor agent.

## BACKGROUND OF THE INVENTION

10 The Antineoplastic Protein (ANUP) kills tumor cells. The protein (ANUP) in the purified state has been implicated in regression of both HeLa (human cervical tumor all line) and KB (human laryngeal cell line) implanted in nude mice.

## SUMMARY OF THE INVENTION

15 The present invention describes the pharmacologically active anti-tumor activity of the 16 amino acid peptide which represents the partial N-terminal amino acid sequence of the Antineoplastic Protein (ANUP).

20 The 16 amino acid peptide is approximately one-half as active as the protein on a molar basis utilizing the human breast tumor cell line (MDA 231). However, only about one-tenth of the weight of the peptide is required when compared to the amount of protein for equivalent activity against the human breast tumor cell line. Both the protein and the peptide exert their action by killing tumor cells (apoptosis) since electron microscopy studies showed complete degradation of the cells (Struve et al. Cancer Res. Therapy and Control (1990) 1: pp 225-230).

## DETAILED DESCRIPTION OF THE INVENTION

The present invention relates to the use of the 16 amino acid peptide which represents the partial N-terminal amino acid sequence of the Antineoplastic Protein (ANUP) as a

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